



SOLID STATE DEVICES, INC.

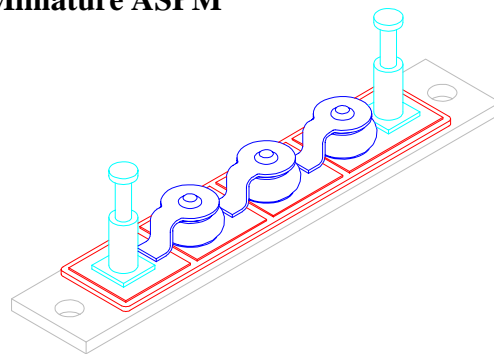
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 ssdi@ssdi-power.com * www.ssdi-power.com

DESIGNER'S DATA SHEET

SPMR534 SERIES

**60 A / 3000V
HIGH CURRENT/HIGH VOLTAGE
RECTIFIER POWER MODULE**

Miniature ASPM



Actual Size

FEATURES:

- Radiation Tolerant Design
- High Current/High Voltage
- Avalanche Breakdown
- Proven Space Flight Heritage
- Compact and Rugged Construction Offering Weight and Space Savings and Very Low Mechanical Stress
- Low Thermal Resistance: 0.45 °C/W
- Hermetic Sealed Discrete Elements
- TX, TXV, and S-Level Screening Available
- Parelene Coating or Epoxy Encapsulation Available
- Other Terminal Configuration Available. Consult Factory

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	VALUE			UNIT
		Standard	Fast	Ultra Fast	
Peak Repetitive Reverse and DC Blocking Voltage	V_{RWM} V_R	1800	1800	1800	Volts
		2500	2500	2500	
		3000	3000	3000	
Average Rectified Forward Current (Non-repetitive, t = 8.3 ms Pulse)	I_O	60	56	50	Amps
Peak Surge Current (Non-repetitive, t = 8.3 ms Pulse, $T_A = 25^\circ\text{C}$)	I_{FSM}	300	250	225	Amps
Operating Temperature Range	T_{OP}	-65 TO +175	-65 TO +165	-65 TO +150	°C
Storage Temperature Range	T_{STG}	-65 TO +175	-65 TO +175	-65 TO +175	°C
Thermal Resistance, Junction to Base	θ_{JB}	0.45	0.45	0.45	°C/W

Available Part Numbers:

SPMR534-18ST, SPMR534-18FT, SPMR534-18UFT
 SPMR534-25ST, SPMR534-25FT, SPMR534-25UFT
 SPMR534-30ST, SPMR534-30FT, SPMR534-30UFT

Part Number /Ordering Information

SPMR534- 18 UF T

Terminal: T = Turret
Speed: S = Standard Recovery
 F = Fast
 UF = Ultra Fast
Voltage: 18 = 1800V
 25 = 2500V
 30 = 3000V

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: PM0018A

SPMR534 SERIES



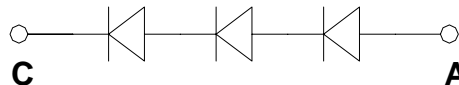
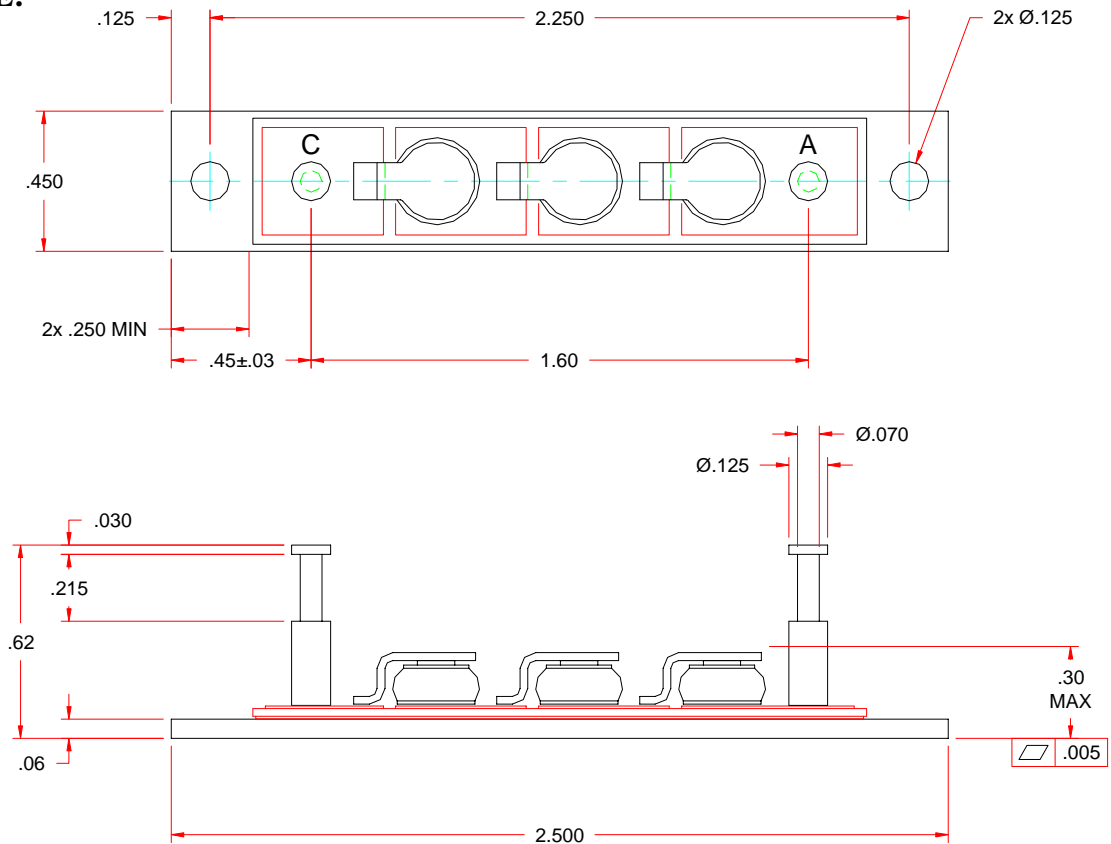
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ELECTRICAL CHARACTERISTICS (per Section)

RATING	SYMBOL	Standard		Fast		Ultra Fast		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
Forward Voltage ($T_A = 25^\circ\text{C}$) $I_F = 1/2$ Rated I_F $I_F =$ Rated I_F	V_{F1}	--	3.10	--	4.00	--	4.80	V
	V_{F2}	--	3.80	--	5.00	--	6.00	
Reverse Leakage Current ($V_R =$ Rated V_R) $T_A = 25^\circ\text{C}$ $T_A = +100^\circ\text{C}$	I_{R1}	--	10	--	20	--	50	μA
	I_{R2}	--	2.0	--	5.0	--	10	mA
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$)	t_{RR}	--	3000	--	200	--	80	nsec
Insulation Resistance (All terminals to Base @ $V_R = 1.5$ Rated V_R)	R_{INS}	1.00	--	1.00	--	1.00	--	$\text{G}\Omega$

PACKAGE OUTLINE:



Tolerances:

(Unless specified):

.XX ±.03

.XXX ±.010